

WHAT IS CLAIMED IS:

1. A blade supporting apparatus in a wiper apparatus in which a wiper blade mounted to a leading end portion of a wiper arm wipes a window surface in correspondence to a normal and reverse rotation of a wiper shaft integrally mounted to a base end portion of the wiper arm, wherein a middle portion of the wiper blade is pivotably supported by the leading end portion of the wiper arm via a pivot substantially orthogonal to an arm length direction so as to freely oscillate and a supporting member provided in the wiper arm supports movably the portion of the wiper blade nearer to the wiper shaft side than the middle portion of the wiper blade in a window surface direction, said supporting member comprising a supporting concave portion formed in the supporting member so as to support the wiper blade and a plurality of ribs elongated in the window surface direction formed on an inner surface of the supporting concave portion so as to be linear contact with the wiper blade.

2. A blade supporting apparatus in a wiper apparatus according to claim 1, wherein an upper piece portion constituting the supporting concave portion in the supporting member is fixed to the wiper arm.

3. A blade supporting apparatus in a wiper apparatus according to claim 1 or 2, wherein the wiper arm is structured such that a base end portion of an arm piece in which the wiper blade is mounted to a leading end portion thereof is fixed to a leading end portion of an arm shank formed in a substantially

C shape in a cross section in such a manner as to be inward fitted, and the supporting member is fixed to the base end portion of the arm piece via a bolt screwed from an inside of the supporting concave portion, and is fixed to the leading end portion of the arm shank together with the arm piece.

4. A blade supporting apparatus in a wiper apparatus according to claim 3, wherein positioning means for fitting the arm piece in a positioning manner is formed in an assembling portion of the supporting member with the arm piece.

5. A blade supporting apparatus in a wiper apparatus according to claim 4, wherein the positioning means is constituted by a pair of protruding pieces faced to an arm length direction of the wiper arm and a protruding piece orthogonal to the arm length direction and against which a base end edge of the arm piece is struck, and is used also as anti-vibration means for preventing a stabilizer from vibrating with respect to the arm piece.

6. A blade supporting apparatus in a wiper apparatus according to any one of claims 1 to 5, wherein the supporting member supports a blade lever constituting the wiper blade, and a support receiving body inward fitted to the supporting concave portion of the supporting member is provided in a supporting portion of the blade lever in a come-off preventing manner.

7. A blade supporting apparatus in a wiper apparatus according to claim 6, wherein the supporting portion of the blade lever by the supporting member is disposed near a pivot portion pivoting a first lever connected to the wiper arm and a second

lever, and at least one rib in the supporting concave portion opposes to a pin fastened to the pivot portion.

8. A blade supporting apparatus in a wiper apparatus according to claim 6 or 7, wherein a through hole allowing both end portions of a pin between the first lever and the second lever to protrude and expose to the outside is opened in the support receiving body.

9. A blade supporting apparatus in a wiper apparatus according to any one of claims 6 to 8, wherein the support receiving body is open on the window surface side to be formed in a substantially C cross sectional shape, and the support receiving body is provided with a fitting and attaching portion fitting to the pivot portion pivoting the first lever and the second lever, and an extension portion extended from the fitting and attaching portion so as to be interfered with the second lever and regulating a movement of the second lever in a wiping direction.

10. A blade supporting apparatus in a wiper apparatus according to any one of claims 6 to 9, wherein the fitting and attaching portion of the support receiving body is formed thinner than the extension portion, and the fitting to the first lever is achieved by an elastic deformation of the fitting and attaching portion.

11. A blade supporting apparatus in a wiper apparatus according to any one of claims 6 to 10, wherein a first step portion engaging with the first lever in the window surface direction so as to achieve a come-off prevention and a second

step portion engaging with the first lever in the lever length direction so as to achieve a come-off prevention are formed in the fitting and attaching portion of the support receiving body.

12. A blade supporting apparatus in a wiper apparatus according to claim 11, wherein the second step portion is formed so as to be positioned at both end portions of the first step portion in the lever length direction.

13. A blade supporting apparatus in a wiper apparatus according to claim 11 or 12, wherein at least one second step portion is continuously formed in the first step portion.